



A STUDY ON CUSTOMER PERCEPTION OF ORGANIC AND INORGANIC PRODUCTS IN CITY OF CHENNAI

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ABSTRACT

As the organic market continues to grow, interest in Chennai consumers purchasing organic food and consumption behavior have emerged as essential research topics. The aim of the present study was to obtain an in-depth understanding of Chennai consumers purchasing and consumption behavior with regard to organic food products. Consumer behavior models were employed for comparison which best serve for the purpose: Rational Based Theory and Value based Theory. Based on the behavior and moral models constructs, different Men, Women's organic food consumer groups were profiled. In addition, with the increasing consumer demand for health, food safety, and nutrition, the relationship between individual's health consciousness and their organic food purchasing and consumption behavior was also examined. The participants in this study were a self-selected sample of Men, Women living in Chennai. The study also determined that based on the constructs of the theoretical framework, individual's self-perceived subjective knowledge had a significant direct influence on consumer organic food purchasing and consumption behavior. Respondent's health consciousness was found to be significantly correlated with their organic food purchasing and consumption behavior. It is suggested that marketers of organic food products allocate their major efforts and resources in providing more organic-food related information when targeting consumers, rather than seeking endorsements from celebrities, the media, or related advocate groups.

KEYWORDS: Organic Products, Consumer Behavior, Health, Food Safety, Organic Market, Organic food.

INTRODUCTION

In recent decades, the role of ethical consumer goods rose as people's habits are changing in selecting everyday products. The demand for organic foods are growing which is driven by consumers' perceptions of the quality and safety of these foods and by the positive environmental impact of organic agricultural practices. People have now begun to value their buying habits on health factors and to choose environmentally friendly products. The growth of demand for organic food is expected to continue in the coming years. The reason is related to the possibility of higher financial returns for farmers in a dripping market.

Organic food production seems to establish an interesting market niche particularly to attract small farmers who cannot benefit from the economy because of technologically advanced agricultural production. From a research outlook it is important to understand why consumers are consuming a certain level of organic food, how frequently they buy organic food, and their level of awareness towards organic food, when consumers' change their consumption pattern, what the consumers' motives are, how the consumption of organic food consumption can be enhanced in coming years.

In an attempt to explain the substance of consumer behavior this theory will explore two commonly used theories, they are the Rational Based Theory (RBT) and the Value-Belief-Norm (VBN) model. The reason for the inclusion of rational and moral based approaches is their distinctions. This distinction is important, as they define whether the consumer is generally influenced by internal or external factors when making a decision. The conflict between rational and moral considerations brings in the area of sustainable consumption which makes it more interesting, as individual sacrifice have to be made in order to assist the environment.

THEORETICAL FRAMEWORK

This section will provide a brief description of some theories of consumer behavior implemented to the field of sustainable organic consumption. It is assumed that there is a linkage between considerations made when considering sustainable consumption in general and the purchase of organic food, as the behavior of purchasing organic food is one way to conduct sustainable consumption. These theories presumably have qualities that might provide insight when attempting to develop a model for understanding the purchase of organic food. The first set of theories is rational theories while the second set is based on morale.

Rational theories

Rational theories base themselves upon the assumption that consumers conduct a cost-benefit analysis when making a decision. This means that the consumers aim to achieve utility maximization in that they seek to maximize their outcome and minimize the cost related to the outcome.

Theory of Planned Behavior

The Theory of Planned Behavior consists of two variables. Attitude towards the behavior (AB) is the first variable and it describes how the consumer views the behavior in question. The second variable is subjective norms (SN), and it considers factors in the surroundings of the consumer, such as the viewpoint of friends and family.

Behavioral Reasoning Theory

Behavioral Reasoning Theory (BRT) was developed in order to identify new linkages underlying intentions and behavior. The theory proposes that reasons serve as important linkages between beliefs, global motives, intentions and behavior. The BRT theory was created upon the framework of the Theory of Planned Behavior, as the creator identified a gap in the model construct.

Attitude Behavior Context Theory

The Attitude Behavior Context (ABC) theory (Guagnano, Stern et al. 1995) can be characterized as an environmental model, as it accommodates for the surroundings of the consumer. The ABC theory builds upon the framework of a standard means-end theory, meaning that the consumer acts upon expected functional and psychological gain from a given behavior.

Moral Based Theory

Value-Belief-Norm Theory

By contrast to TPB, VBN considers altruistic considerations as measures to predict behavior. This model is especially constructed to deal with issues concerning environmental behavior. The theory was introduced in order to develop a conceptual framework to predict individual conservationist action (Stern 2000).

Norm-Activation Theory

The Norm-Activation Theory (NAT) has been used to explain the way an environmental concern is transformed into behavior. It considers external factors that are processed through a norm filter in order to predict behavior. The behavior may be influenced through personal and subjective norms. The norm activation theory has been applied to the extended Value-Belief-Norm theory as the final antecedent of behavior.

Section conclusion

All theories included have in common that they have shown explanatory power in studies regarding sustainable consumption. When researching earlier studies on sustainable behavior, it is apparent that Theory of Planned Behavior and the Value-Belief-Norm theory are those most commonly applied. It seems that rational theories are most commonly applied, despite of the moral considerations presumably undertaken when deciding upon acts influencing the environment. This lack of moral theories is the reason for including the Norm-Activation Theory despite of its appearance in the Value-Belief-Norm theory.

Literature Overview

Reference	Aim of study	Summary of results	Important findings
(Bård Eide, 2013)	The aim of the thesis is to improve explanation value regarding consumer purchase of organic food products. By comparing and analyzing existing theories utilized in studies on sustainable consumption.	The TPB and the VBN theory were most commonly utilized and consistently displayed significance. The new model contains both rational and moral considerations, combined into one model to take into account the complex nature of the issue.	This thesis concludes that both the TPB and the VBN are sufficient theories that cover different aspects of the behavior that is purchasing organic food. Combining these theories would arguably increase explanation value.
(Kaiser, Hübner et al. 2005)	Contrasting TPB and VBN in explaining conservationist behavior.	TPB beats VBN in explanation value. Moral is possibly integrated into attitude in TBP. VBN is also successful.	TPB: PBC explains the largest amount of BI. VBN: PN was the most influential variable on behavior.
(Arvola, Vassallo et al. 2008)	Predicting intentions to purchase organic food by applying moral the TPB.	Positive moral attitude, defined as self-rewarding for doing the right thing had an impact. Respondents were more positive towards organic apples than pizza.	Attitude, subjective norm and moral attitude all showed significance.
(Claudy, Peterson et al. 2012)	Exploring the gap between attitude and intention	TPB and VBN cannot explain the gap. Introduction of the Behavioral Reasoning Theory (BRT) provides understanding.	Reasoning for behavior affects only attitude, while reasoning against affects only intention.
(Ming Elisa Liu, 2007)	The aim of the present study was to obtain an in-depth understanding of U.S. college students' purchasing and consumption behavior with regard to organic food products.	Compare and assess the effectiveness of TRA, TpB, and ERE model to measure college student organic food consumption behavior and to develop a consumer profile based on the theory constructs.	Results demonstrated that the ERE model showed a better ability and usability for this purpose.
(Monika Kavaliuske, Simona Ubartaite, 1994)	The aim of this research was to determine the factors that influence the intention to buy organic products.	The differences between consumer characteristics regarding ethical consumer behavior.	It identified the influence of consumer ethical beliefs, product safety, concern about health, and product price and product availability, on the intention to buy organic.
(Jay Dickieson, Victoria Arkus, 2009)	This paper measures the effect of several factors on the behavior of consumers who purchase organic food products in the UK		Our data demonstrated that consumers were most heavily influenced by their perceptions of quality

OBJECTIVES

- 1 To understand the price war between organic and inorganic products.
- 2 To make an analysis of organic and inorganic health benefits
- 3 To understand customers apprehension towards organic products

METHODOLOGY

1. Population

The population selected for this particular study is for general public in Chennai particularly. Questionnaire were distributed and collected personally by the researcher.

2. Research Design

The study is explorative as well as descriptive in nature.

3. Sample Design

The particulars of sample design,

Type of Universe: Chennai
 Sampling: Convenience
 Sampling Unit: Chennai
 Source List: General Public
 Size of Sample: 300
 : 67 – field response
 : 233 – online response

4. Tool of Data Collection

Interviews were conducted with general public on their perception about Organic Food. Researchers visited parks and beaches to collect data, and each respondent was given with an organic candy for spending their time in aiding our research.

5. Sources of Data

The study will consist of both primary and secondary data. The primary data was collected by direct interview through questionnaire. The secondary data was collected from research publications, standard journal, books and newspapers.

6. Research Instrument - Questionnaire Method

The instrument is be administered in the local organic shops individually.

7. Analysis of Data

The data will be analyzed to determine the customer perception of organic and Inorganic products in Chennai.

RESULTS

Demographic Data

Our survey generated a total of 300 responses. The following comprises a brief overview of the demographic data which was collected based on results provided by respondents. We found that 160 of respondents were male versus 140 who were female. There was an extensive distribution of age range, and there was a satisfactory sample of those who fell into age ranges our research has revealed as consistent with organic purchasing behavior. The majority of responses were between 18 and 25, with 75% male and 65% female in this range.

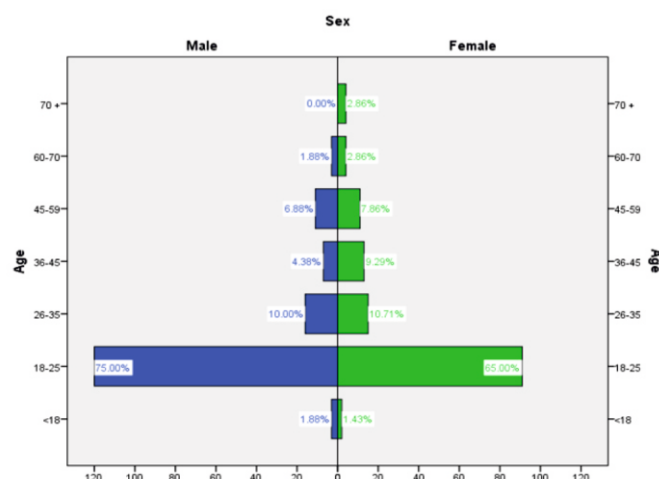


Figure 1: Sex and Age

In terms of education level, 10% of our respondents (n=30) had 10th, 12th or other certification. The majority had either a bachelors or masters degrees, with 48% (n=144) having a bachelors and 40% (n=120) having a masters and the other 2% had a PhD (n=6). Clearly, therefore the majority of our respondents were highly educated. A graphical representation of these distributions follows.

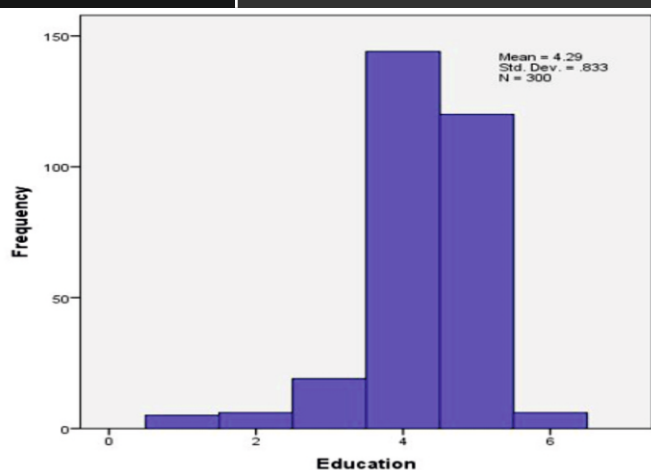


Figure 2: Education

We have thus finished analyzing the demographics of our respondents, now we sought to establish the respondent's frequency of purchasing organic produce. We began by asking "How often do you purchase organic food?"

The distribution of frequent and infrequent buyers

Table 1: Frequency of buying

		Percent
Frequent buyers	Monthly	33.0
	Weekly	24.0
	Less than Monthly	13.3
Infrequent buyers	Once in a year	3.7
	Fortnightly	7.3

The results were clearly widely distributed; however the vast majority 33% (n=99) of respondents purchased organic food within the month. A total of 24% of respondents regularly purchase organic food weekly and inversely the other remaining respondents are infrequent organic shoppers and buy fortnightly or less often, also to be noted is the number of not answered questions (n=56) which is 18.7% do not buy organic food. We asked the respondents where they purchased the food from. A large percentage of them responded with large supermarkets or Food stores. While the second frequent was small locally owned Food stores, this can be attributed to the fact that in India most of them still prefer kirana shops and the supermarkets rather than organic food stores.



Figure 3: Where do they shop?

After analyzing the questioning purchasing behavior, we asked: "Which of the following types of organic food do you purchase?"

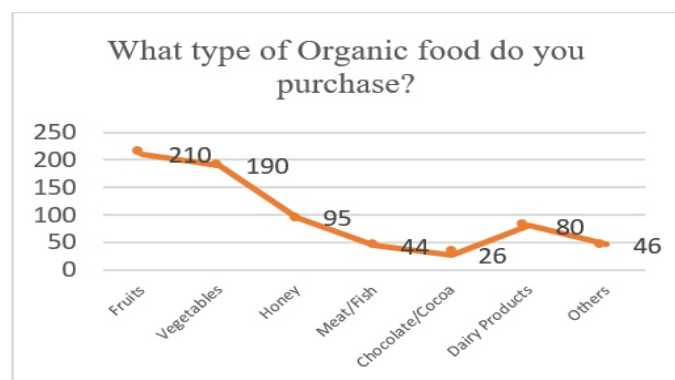


Figure 4: Type of organic food

The results evidently show that the majority of respondents bought vegetables and fruit. Also popular however were dairy products.

OVERALL RESULTS

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Price	300	1	5	3.67	.981
Var Price	300	0	5	3.14	1.444
Var Status	300	0	5	2.49	1.375
Var Health	300	0	5	3.83	1.429
Var Availability	300	0	5	3.28	1.427
Var Quality	300	0	5	3.75	1.450
Farmers	300	1	5	4.17	1.021
Gardening	300	1	5	3.89	1.159
Health	300	1	5	4.00	1.333
Taste	300	1	5	3.52	1.337
Fitness	300	1	5	3.92	1.297
Environment	300	1	5	3.76	1.335
Behaviour	300	1	5	2.17	1.290
Value	300	1	5	3.50	1.387
Quality	300	1	5	3.71	1.383
Behaviour_1	300	1	5	3.07	1.497
Valid N (listwise)	300				

Each variables means are summarized above. The standard deviation shows the size of the range of answers fairly high in almost all the cases. This is further reflected by the minimum and maximum answers provided for each variable. The range of answers almost universally shows a complete difference of opinion with answers on polar opposite ends of the scale. The relatively high standard deviation also reflects a divergence of opinion by respondents on most questions, with the possible exception of price which is the lowest. The following findings are gained in the order from highest to lowest mean:

- **Respondents really view that consuming organic food means that they support the farmers:** The highest mean of 4.17 is incurred. So the consumers were aware that they are helping the farmers by buying organic products, because of the fact that pesticides affects the crop cultivation over a period of time. Also environment variable had a high mean of 3.76 (6th highest).
- **Respondents are health conscious:** The variables Var_Health, Fitness, Health considered and Overall health (Mean=4) consciousness signified the highest mean score of each of the variables tested. This clearly identifies respondents as being generally quite concerned with their health. Since majority of the respondents were between the age group of 18-25, we arrive at the fact that younger people are really concerned about the overall health and fitness (another variable with mean 3.92. It had a standard deviation =1.297).
- **People are interested in having their own organically grown garden (Terrace):** With a mean of 3.89 and SD of 1.159 consumers showed interest in maintaining a garden in their roof or open land. It showed the level of awareness among the people.
- **Organic food is pesticide free (Quality):** The third highest mean score, of 3.71 and 3.75 (variables: Quality and Var_Quality) had to do with respondents concern over food safety and Quality. They were questioned whether they were apprehensive about genetically modified foods, pesticide contamination in their food and more generally the overall safety of food in supermarkets, consumers were clearly concerned. Food safety represents consumers concern regarding residues in food resulting from chemical sprays, fertilizers, artificial additives and preservatives, which are often linked to farming methods.
- **Organic food is too pricy:** The set of questions linking to price revealed that commonly held discernments involving price held stable with respondents. They were asked a series of questions about whether they felt organic food was too pricy and the response was clear. With a mean score of 3.67 respondents indicated they were included to "somewhat agree" or "strongly agree" with organic food as "expensive." 3.14 was the mean when they asked if Price is one of the key variables in considering organic food consumption. Around 21.3% said "Strongly Agree" and 23% said "Somewhat agree" while the "strongly disagree" was 17.7%. Also to be noted here is that around 83.2% said they would buy organic food if it were sold in a much lower price.
- **Organic Food tastes better than the non-organic counter parts:** We never really expected to have a high mean of 3.52 in the case of taste. When we were interviewing the consumers, they clearly indicated that the organic food had better taste than the packed, highly pesticide prone general foods and that they felt energetic after having it. We infer that the organic food actually tastes better than the normal foods.

- **Buying organic food means that I care more about value:** Respondents were asked whether they would care more about value or whether they are satisfied with the fortified food. The value variable with a mean score of 3.5. These Scores demonstrate that people give more significance to value more than money.
- **Availability:** In Chennai, organic market sector is a upcoming one and there aren't much organic stores in the city and hence the availability is quite low. With the mean of 3.28, 27% didn't comment i.e. didn't agree or disagree. Hence a conclusion was not made here.
- **Is there a difference in buying an organic food over non-organic food (Behavior_1):** The data reveals that with a mean score of 3.07, there was a mixed or a equal reaction to both agree and disagree. So there are 2 kinds of people in the economy who perceive organic food in a totally contrast way. This is attributed by a high SD of 1.497.
- **Respondents disagreed with the concept of organic food as a status symbol:** The lowest mean score for each variable tested was status (2.49). Customers were asked whether they felt organic food was a status symbol, part of a more "wealthy lifestyle" or along with whether they felt pressure from peer groups to purchase organic products. Customers clearly indicated they did not view organic food products as a status symbol and were not moved to make a purchase decision as a result.
- **Consumers do not view organic food as a waste of money:** Consumers really do not consider organic food to be a waste of money though there is a viewpoint as organic is expensive, people are ready to buy in a reasonable price.
- **Level of Trust:** To increase the level of trust to buy more organic food, the customer's response revealed that with the Scientific Evidence (40%), then the Government Regulation (28%) and Brand awareness (23%) they are ready to buy more organic products. Celebrity endorsement was not really important factor when considering the level of trust to increase. Also many customers gave others options and they were:
 - Word of mouth (Customer satisfaction)
 - Belief on shop (Organic store trustworthiness)

Belief	People are worried about Genetically Modified food, significance between gender and GM is performed. Organic tagging practice along with the general purchaser disarray about certification and skeptical about products which are said to organic.	Positive
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HYPOTHESIS TESTING

Hypothesis 1:

Table 3: Chi Square Test for Belief

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.553 ^a	3	.014
Likelihood Ratio	11.046	3	.011
Linear-by-Linear Association	6.388	1	.011
N of Valid Cases	300		

There is a significance difference between the gender and the genetically modified apprehension.

The Pearson Chi square test reveals the significance of 0.014 which less than .05. Because of this, we can conclude that there is a statistically significant difference between genetically modified food and gender. GM production is generally quite vocally conflicting by all the consumer groups (gender biased), and even more so by environmental organizations. This makes the studying into GM and organic food in terms of food safety as a variable more stimulating. Also people are skeptical about the products which are said to be organic, around 73.3%.

Table 4: Skeptical about organic food

Skeptical					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid					
	Yes	220	73.3	73.3	73.3
	No	78	26.0	26.0	99.3
	Not sure	2	.7	.7	100.0
Total	300	100.0	100.0		

Health	Being more health conscious and an obligation to give a more nourished foods to the family which in the long run drives us to purchase organic foods by maintaining a strategic distance from all the fortified foods	Positive
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Hypothesis 2:

Table 5 : Discriminant Analysis for Health

	Wilks' Lambda	F	df1	df2	Sig.
Sex	.992	1.213	2	297	.299
Age	.988	1.819	2	297	.164
Education	.995	.810	2	297	.446
Standardized Canonical Discriminant Function Coefficients					
	Function				
	1		2		
Sex	.304		.870		
Age	.807		-.142		
Education	-.266		.450		

Discriminant Analysis was performed between the different gender, Age, Education and the health factor. It is used to determine whether sample data are consistent with a hypothesized distribution.

We can conclude that there is no statistically significant difference for the gender and Education conditions, while Age has significantly over health, we could also say that everyone are equally conscious about their health.

Price	The cost of organic food are said to be high in price is it truly routine and conceivable to give more beneficial and has a higher value. To have a heavenly nourishment which pesticide-free food.	Positive
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Hypothesis 3

Table 6: Correlation between Price and availability

	Var_Availability	Var_Price	
Var_Availability	Pearson Correlation	1	.468**
	Sig. (2-tailed)		.000
	N	300	300
Var_Price	Pearson Correlation	.468**	1
	Sig. (2-tailed)	.000	
	N	300	300

The population reacted with a high negative response that organic food are expensive, we wanted to determine which variable /affected the price (availability). A correlation was performed on the price and availability.

We can conclude that there is a statistically significant correlations between your two variables the price and the availability. That means, increases in availability variable do significantly relate to decreases in your price variable. Also to be noted is that there involves lots of other factor when the price is concerned.

CONCLUSION

We are sufficiently satisfied that our consumer behavior model serves as a good indicator of the amount by which certain variables have an impact on behavior (ultimately affecting purchasing decisions). We were able to show that health consciousness, brand quality, trust in scientific evidence all play a role in positively influencing consumer behavior. Also people pressed on the fact that organic food needs some government regulations for more people to buy organic food. In summation, a number of conclusions can be drawn from the results of this paper:

- If the change in price of organic food acts as the primary barrier to purchase, it would go a long way to convert those who are infrequent organic purchases and often helps to purchase more of organic products.
- Scientific evidence, Government regulations and brand awareness which helps to create a level of trust on purchase of organic products rather than non-organic products.
- People's perception on quality of organic products was on food safety which signifies consumers concern regarding residues present in food resulting from chemical sprays, fertilizers, artificial additives and preservatives over genetically modified food are playing a large role in pushing consumers towards organic. Safety is clearly a major factor in the purchasing of organic food.
- People in current scenario are more concerned about their health, younger generations are more health conscious. Also according to survey people feel that the taste of organic are better than non-organic foods. Last but not the least, India is a country with agriculture as its backbone and hence this sector needs more attention and certain regulations to curb the health epidemics. When Sikkim can go as 100% organic, why can't Tamil Nadu or India entirely adopt organic farming to protect the environment and also improve health factor.

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